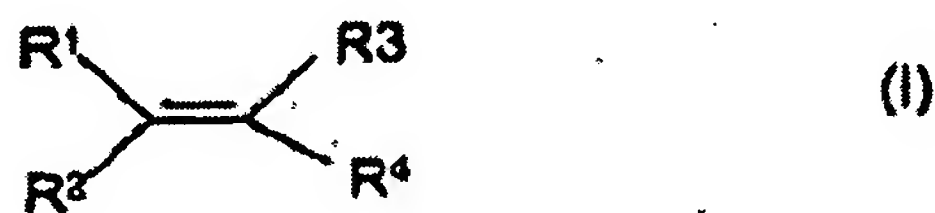


In the Claims

Listing of the Claims

This listing of claims will replace all prior versions, and listings, of the claims in the application.

1. (Currently Amended) A method for depositing a polymeric material onto a substrate, ~~said~~the method comprising introducing a monomeric material in a gaseous state into a plasma deposition chamber in which a plasma zone has a volume of at least 0.5m^3 , igniting a glow discharge within said chamber, and applying a voltage as a pulsed field, at a power of from 0.001 to 500w/m^3 for a sufficient period of time to allow a polymeric layer to form on the surface of the substrate.
2. (Currently Amended) ~~A~~The method ~~according to~~of Claim 1 wherein the plasma zone within the chamber has a volume of about 1m^3 or more.
3. (Currently Amended) ~~A~~The method ~~according to~~of Claim 2 wherein the plasma zone has a volume of between 1m^3 and 10m^3 .
4. (Currently Amended) ~~A~~The method ~~according to any of claims 1 to 3 of Claim~~1 wherein the power is applied at from 0.001 to 100w/m^3 .
5. (Currently Amended) ~~A~~The method ~~according to~~of Claim 4 wherein the power is applied at from 0.04 to 100w/m^3 .
6. (Currently Amended) ~~A~~The method ~~according to any one of the preceding claims of Claim 1~~wherein the monomeric material is an unsaturated organic compound which comprisescomprising a chain of carbon atoms, which are optionally substituted by halogen.
7. (Currently Amended) ~~A~~The method ~~according to~~of Claim 6 wherein the monomeric material is a compound of formula (I):



where R^1 , R^2 and R^3 are independently selected from hydrogen, alkyl, haloalkyl or aryl optionally substituted by halo; provided that at least one of R^1 , R^2 or R^3 is hydrogen, and R^4 is a group $X-R^5$ where R^5 is an alkyl or haloalkyl group and X is a bond; a group of formula $-C(O)O(CH_2)_nY-$ where n is an integer of from 1 to 10 and Y is a bond or a sulphonamide group; or a group $-(O)_pR^6(O)_q(CH_2)_t-$ where R^6 is aryl optionally substituted by halo, p is 0 or 1, q is 0 or 1 and t is 0 or an integer of from 1 to 10, provided that where q is 1, t is other than 0.

8. (Currently Amended) ~~A~~The method ~~according to~~of Claim 7 wherein the compound of formula (I) is an acrylate of formula (III)



where n and R^5 ~~are~~ as defined above in claim 7 and R^7 is hydrogen or C_{1-6} alkyl.

9. (Currently Amended) ~~A~~The method ~~according to~~of Claim 8 wherein the acrylate of formula (III) is 1H,1H,2H,3H-heptafluorodecylacrylate.

10. (Currently Amended) ~~A~~The method ~~according to any one of the preceding claims of Claim 1~~ wherein the monomeric compound in a gaseous state is supplied to the chamber in combination with a carrier gas.

11. (Currently Amended) ~~A~~The method ~~according to~~of Claim 10 wherein the carrier gas is helium.

12. (Currently Amended) ~~A~~The method ~~according to any one of the preceding claims of Claim 1~~ wherein gaseous material is supplied to the chamber at a rate of at least 1 standard cubic centimetre per minute (sccm).

13. (Currently Amended) ~~A~~The method according to any one of the preceding ~~claims of Claim 1~~ wherein vapours of compounds of formula (I) in the chamber are maintained at pressures of from 0.01 to 300 mbar.
14. (Currently Amended) ~~A~~The method according to any one of the preceding ~~claims of Claim 1~~ wherein the power is pulsed in a sequence in which the power is on for 20 μ s and off for from 1000 μ s to 20000 μ s.
15. (Currently Amended) ~~A~~The method according to any one of the preceding ~~claims of Claim 1~~ wherein gas is supplied to the chamber along a temperature gradient.
16. (Currently Amended) ~~A~~The method according to any one of the preceding ~~claims of Claim 1~~ wherein the chamber is heated during the deposition process.
17. (Currently Amended) ~~Apparatus~~An apparatus for depositing a polymeric material onto a substrate, ~~said the~~ apparatus comprises a plasma deposition chamber, at least two electrodes arranged so as to ignite a plasma within the chamber, a pump system arranged to feed monomer gas into the chamber, and power control means programmed to pulse power supplied to the electrodes so as to produce a plasma at a power of from 0.001 to 500w/m³ within a plasma zone within the chamber, ~~said the~~ plasma zone having a volume of at least 0.5m³.
18. (Currently Amended) ~~The apparatus~~Apparatus according to Claim 17 wherein the apparatus further comprises heating means for the chamber.
19. (Currently Amended) ~~The apparatus~~Apparatus according to Claim 17, ~~or claim 18~~ which further comprises a container for monomer, which is connected to the chamber.
20. (Currently Amended) ~~The apparatus~~Apparatus according to Claim 19 wherein heating means ~~are~~is arranged to create an increasing temperature gradient between ~~said the~~ container and ~~said the~~ chamber.